TRANSMITTAL FORM	Attorney Docket No. STL920000066US1 1804P

In re the application **WOLFSON**

Serial No: **09/731,088**

Filed: **December 5, 2000**

Confirmation No: **9367**

Group Art Unit: **2175**

Examiner: **Rimell, Samuel G.**

For: **INTEGRATION OF MESSAGING FUNCTIONS AND DATABASE OPERATIONS**

ENCLOSURES *(check all that apply)*		
☐ Amendment/Reply	☐ Assignment and Recordation Cover Sheet	☐ After Allowance Communication to Group
☐ After Final	☐ Part B-Issue Fee Transmittal	☐ Appeal Communication to Board of Appeals and Interferences
☐ Information disclosure statement	☐ Letter to Draftsman	■ Appeal Brief *(in triplicate))*
☐ Form 1449	☐ Drawings	☐ Status Letter
☐ (X) Copies of References	☐ Petition	■ Postcard
☐ Extension of Time Request *	☐ Fee Address Indication Form	☐ Other Enclosure(s) (*please identify below):*
☐ Express Abandonment	☐ Terminal Disclaimer	
☐ Certified Copy of Priority Doc	☐ Power of Attorney and Revocation of Prior Powers	
☐ Response to Incomplete Appln	☐ Change of Correspondence Address	
☐ Response to Missing Parts	*Extension of Term: Pursuant to 37 CFR 1.136, Applicant petitions the Commissioner to extend the time for response for xxxxxx month(s), from to .	
☐ Executed Declaration by Inventor(s)		

CLAIMS					
FOR	Claims Remaining After Amendment	Highest # of Claims Previously Paid For	Extra Claims	RATE	FEE
Total Claims	0	0	0	$18.00	$ 0.00
Independent Claims	0	0	0	$86.00	$ 0.00
				Total Fees	$ 0.00

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Attorney Name	Stephen G. Sullivan, Reg. No. 38,329
Signature	
Date	August 11, 2004

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: August 11, 2004	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL NO:

In Re Application of: WOLFSON

Confirmation No. 9367

Serial No. 09/731,088

Filed: December 5, 2000

For: INTEGRATION OF MESSAGING FUNCTIONS AND DATABASE OPERATIONS

APPELLANT'S BRIEF

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TOPICAL INDEX

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF ON APPEAL

Sir:

Appellant herein files an Appeal Brief drafted in accordance with the provisions of 37 C.F.R. § 1.192(c) as follows:

I. REAL PARTY IN INTEREST

Appellant respectfully submits that the above-captioned application is assigned, in its entirety to International Business Machines Corporation, Armonk, New York.

II. RELATED APPEALS AND INTERFERENCES

Appellant states that, upon information and belief, he is not aware of any co-pending appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Application Serial No. 09/731,088 (the instant application) as originally filed included claims 1-18. Claims 1-18 are pending. Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 are on appeal and all applied prospective rejections concerning Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 are being appealed herein.

IV. STATUS OF AMENDMENT

No amendments were made to the instant application.

V. SUMMARY OF THE INVENTION

The present invention provides aspects for integrating messaging functionality into database programming. The aspects include providing one or more chosen functions from a messaging system in a database program. The one or more chosen functions from the database program are then utilized within structured query language statements to access the messaging system from the database program.

The present invention utilizes the mechanisms provided by SQL to allow a database query to be formed that incorporates messaging function operations within an SQL statement. Following the SQL standard, these messaging functions may be used wherever a function is allowed in SQL. In this manner, access is conveniently and efficiently provided to messaging software from SQL to allow current database programs to leverage the advantages of messaging into their operations. The straightforward approach of the present invention is also more intuitive to database developers and administrators, since it provides the messaging capabilities within the traditional database programming context, i.e., adding the messaging functions as user defined functions.

VI. ISSUES

The issue presented is:

(1) whether claims 1-18 are unpatentable under 35 U.S.C. 102(e) over Chandra et al. ("Chandra") US 6,058,389.

VII. GROUPING OF CLAIMS

Appellant hereby states that claims 1-18 form one group.

VIII. ARGUMENTS

A. Summary of the Applied Rejections

In the final office action dated 2/17/04 (paper #5), the Examiner cited 35 U.S.C. 102(e) in rejecting claims 1-18 as being anticipated by Chandra. In making the rejection, the Examiner contends that:

Chandra et al. sets forth a database system (FIG. 3) containing message queues (FIG. 2). Multiple chosen functions are provided, such as ENQUEUE and DEQUEUE in order to control the messages in the message queue (See col. 12, lines 62-68; col. 13, lines 1-67; and col. 16, lines 18-30). The chosen functions are utilized and implemented by SQL statements (col. 12, lines 65-67).

In response to Appellant's arguments regarding the rejection, the Examiner states:

Applicant argues the Chandra et al. does not disclose a messaging system that is accessed by a database system, because in Chandra et al., the messaging system (message queues) are within the database. This argument is moot because the claims do not state that the messaging system is physically separate from the database system. In addition, applicant's arguments to this point appear to contradict the independent claims, which explicitly recite a "messaging system in a database system" (claims 1 and 13). The claims clearly are not suggesting a messaging system which is physically separate from the database system.
Applicant argues that the functions of ENQUEUE and DEQUEUE are not chosen functions of a messaging system, but rather are functions of the database system itself. However, in Chandra et al., the messaging is part of the database system, so the functions ENQUEUE and DEQUEUE are actually functions which are chosen by the user and associated with both systems.
Applicant further argues that the ENQUEUE and DEQUEUE commands are individual SQL statements but are not used within other SQL statements. This argument is not correct. See TABLE 3 shown in col. 24, in which ENQUEUE and DEQUEUE commands are used with other commands.

Appellant respectfully requests that the Board reverse the Examiner's final rejection of the pending Claims.

B. The Cited Prior Art

Chandra describes a message queuing system in a database system. A queue is an ordered list of messages. Messages are requests for processing by an application. Messages are database objects and can represent events or data. Messages comprise user data and control information such as a queue name. Each queue is part of a table in a relational database. A queue table holds a set of queues.

C. Claims 1-18 Are Not Unpatentable Under 35 U.S.C. 102(e)

The present invention provides aspects for integrating messaging functionality into database operations. The aspects include providing one or more chosen functions from a messaging system in a database system. The one or more chosen functions from the database system are then utilized within structured query language statements to access the messaging system from the database system. See independent claims 1, 7, and 13.

Appellant respectfully submits that Chandra fails to teach, show, or suggest the recited invention.

Chandra teaches the use of relational tables of a relational database to store queues, the queues being ordered lists of messages. FIG. 3 of Chandra illustrates the containment of a queue as a file 324 in the relational database system 304, while FIG. 2 of Chandra illustrates "logical data structures used in the invention" (col. 3, lines 49-50) for the queue tables stored by the file 324 (col. 6, lines 45-47). In rejecting Appellant's invention, the Examiner points to FIG. 2 of Chandra as teaching the "messaging system"/"messaging program means" of Appellant's recited invention. Appellant respectfully disagrees with the Examiner's interpretation of Chandra's disclosure.

As recited in the first step of independent claims 1 and 13, one or more chosen functions from a messaging system are provided in a database system. Similarly, in independent claim 7, Appellant recites a messaging program means for performing messaging functionality, where one or more chosen functions of the messaging program means are utilized by a database program means. Appellant fails to see how a logical data structure of a queue table stored in a database file could be interpreted to teach or suggest a

system/program means having functionality that can be provided in/utilized by another system.

Further, the functions ENQUEUE and DEQUEUE pointed to by the Examiner as the chosen functions that are provided in order to control the messages in the message queues of Chandra are not taught or suggested as being provided by the so-called 'messaging system'/'messaging program means' of the queue tables. Instead, ENQUEUE and DEQUEUE are taught as being invoked by an internal C function or an SQL statement in an RDBMS application program (see col. 15, lines 39-41 and col. 16, lines 19-20).

Without teaching or suggesting the provision of the chosen function(s), there is nothing the teach or suggest the recited utilization of the chosen function(s) from the database system within SQL statements. Although the Examiner considers this position incorrect and asserts that Chandra's Table 3 shows that "ENQUEUE and DEQUEUE commands are used with other commands," Appellant respectfully submits that the claims recite that the one or more chosen functions are used within structured query language statements, not 'with' other structured query language statements. Thus, in contrast to the recited invention, where one or more chosen functions are included within SQL statements, as shown in the pseudo-SQL examples of Appellant's specification, e.g., pages 9-10, the ENQUEUE and DEQUEUE are separate SQL statements themselves, as shown by the cited Table 3.

Furthermore, Appellant recites that the one or more chosen functions are provided by a messaging system/messaging program means. More particularly, Appellant recites in claim 7 the installation of the messaging program means for performing messaging

functionality on at least one computer processing device, where the one or more chosen functions of the messaging program means are utilized by a database program means also installed on the at least one computer processing device to integrate the messaging functionality performed by the messaging program means within database functionality of the database program means. Appellant reiterates that a queue table stored in a database file fails to teach or suggest the recited separately installed messaging system/message program means and its functionality.

Additionally, Appellant respectfully submits that without teaching or suggesting a messaging system, there is nothing in Chandra to teach or suggest the recited accessing of a messaging system from a database system. More particularly, Appellant respectfully submits that Chandra teaches away from the accessing of a messaging system from a database system, since the database system itself contains the messages in Chandra and thus is the system to be accessed in order to gain access to the messages stored therein. In fact, Chandra points out that an advantage of the Chandra database system is "ease of programming, because application programs no longer require a separate database and MOM product" (col. 36, lines 14-16) where a MOM product is taught by Chandra as being message-oriented middleware "such as IBM's MQ Series" (col. 1, lines 58-59). Such teaching clearly contradicts and teaches away from the recited invention that does include a messaging system/installed messaging program means in addition to a database system/installed database program means.

With regard to the Examiner's assertion that Appellant recites a 'messaging system in a database system,' Appellant respectfully submits that the Examiner appears to have

somehow missed the preposition "from" preceding "messaging system" in the claims. This oversight by the Examiner has led to a gross misinterpretation of the recited invention that serves to support the rejection but fails to wholly represent the actual invention, which recites providing one or more chosen functions from a messaging system in a database system.

Additionally, dependent claims 3, 9, and 15 demonstrate further the separate nature of the messaging system and the database system in the present invention. Claims 3, 9, and 15 each recite aspects of the chosen functions as user-defined functions. Included in the recitation of these claims is "a queue of the messaging system." Appellant respectfully submits that this recitation further exemplifies the distinguishing of the recited invention over the cited art of Chandra, which, as stated above, specifically teaches a queue being provided as a table in a relational database system and offers no teaching or suggestion of a separate messaging system that is accessed by a database system nor of a queue of that messaging system.

In view of the foregoing, Appellant respectfully submits that integrating messaging functionality into database operations as recited in independent claims 1, 7, and 13 is not taught, shown, or suggested by the cited art of Chandra. Additionally, Appellant respectfully submits that claims 2-6, 8-12, and 14-18 are respective dependent claims of 1, 7, and 13, and therefore include the features of claims 1, 7, or 13 while providing further features. Accordingly, claims 2-6, 8-12, and 14-18 are also respectfully submitted as allowable for at least those reasons stated hereinabove with respect to claims 1, 7, and 13.

In view of the foregoing, Appellant respectfully submits that claims 1-18 are not taught, shown, or suggested by the cited art.

Accordingly, Appellant respectfully requests withdrawal of the rejection under 35 U.S.C. 102(e) and respectfully requests that the Board reverse the final rejection of Claim 1-18.

D. Summary of Arguments

For all the foregoing reasons, it is respectfully submitted that Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 (all the Claims presently in the application) are patentable for defining subject matter which would not have been unpatentable under 35 U.S.C. § 102(e). Thus, Appellant respectfully requests that the Board reverse the rejection of all the appealed Claims and find each of these Claims allowable.

Note: For convenience of detachment without disturbing the integrity of the remainder of pages of this Appeal Brief, Appellant's "APPENDIX" section is contained on separate sheets following the signatory portion of this Appeal Brief.

This Brief is being submitted in triplicate, and authorization for payment of the required Brief fee is contained in the transmittal letter for this Brief. Please charge any fee that may be necessary for the continued pendency of this application to Deposit Account No. 09-0460 (IBM Corporation)

Respectfully submitted,

SAWYER LAW GROUP LLP

August 11, 2004
Date

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IX. APPENDIX

1. A method for integrating messaging functionality into database operations, the method comprising:

(a) providing one or more chosen functions from a messaging system in a database system; and

(b) utilizing the one or more chosen functions from the database system within structured query language statements to access the messaging system from the database system.

2. The method of claim 1 wherein step (a) further comprising (a1) adding the one or more chosen functions as user-defined functions in the database system.

3. The method of claim 2 wherein the user-defined functions further comprise functions to place a message on a queue of the messaging system, retrieve at least one message from the queue, non-destructively retrieve all messages from the queue, and read at least one message from the queue.

4. The method of claim 3 wherein the user-defined functions further specify a service endpoint.

5. The method of claim 4 wherein the user-defined functions further specify a destination and delivery policy.

6. The method of claim 1 further comprising providing one or more chosen functions from a publish/subscribe-based messaging system.

7. A system for integrating messaging functionality into database operations, the system comprising:

at least one computer processing device;

a messaging program means installed on the at least one computer processing device for performing messaging functionality; and

a database program means installed on the at least one computer processing device, the database program means utilizing one or more chosen functions of the messaging program means via structured query language statements to integrate the messaging functionality within database functionality of the database program means.

8. The system of claim 7 wherein the one or more chosen functions further comprise user-defined functions in the database program means.

9. The system of claim 8 wherein the user-defined functions further comprise a functions to place a message on a queue of the messaging system, retrieve at least one message from the queue, non-destructively retrieve all messages from the queue, and read at least one message from the queue.

10. The system of claim 9 wherein the user-defined functions further specify a service endpoint.

11. The system of claim 10 wherein the user-defined functions further specify a delivery policy.

12. The system of claim 7 wherein the messaging program means further comprises a publish/subscribe-based messaging program means.

13. A computer readable medium containing program instructions for integrating messaging functionality into database operations, the program instructions comprising:

(a) providing one or more chosen functions from a messaging system in a database system; and

(b) utilizing the one or more chosen functions from the database system within structured query language statements to access the messaging system from the database system.

14. The program instructions of claim 13 wherein step (a) further comprising (a1) adding the one or more chosen functions as user-defined functions in the database program.

15. The program instructions of claim 14 wherein the user-defined functions further comprise a functions to place a message on a queue of the messaging system, retrieve at least one message from the queue, non-destructively retrieve all messages from the queue, and read at least one message from the queue.

16. The program instructions of claim 15 wherein the user-defined functions further specify a service endpoint.

17. The program instructions of claim 16 wherein the user-defined functions further specify a destination and delivery policy.

18. The program instructions of claim 13 further comprising providing one or more chosen functions from a publish/subscribe-based messaging system.